



ARPAT
Agenzia regionale
per la protezione ambientale
della Toscana



Regione Toscana



Toscana: Nuovi SIC Marini e Aree Marine Protette: informazione e confronto 29 novembre 2018 Villa Pertusati-Rosignano Marittimo

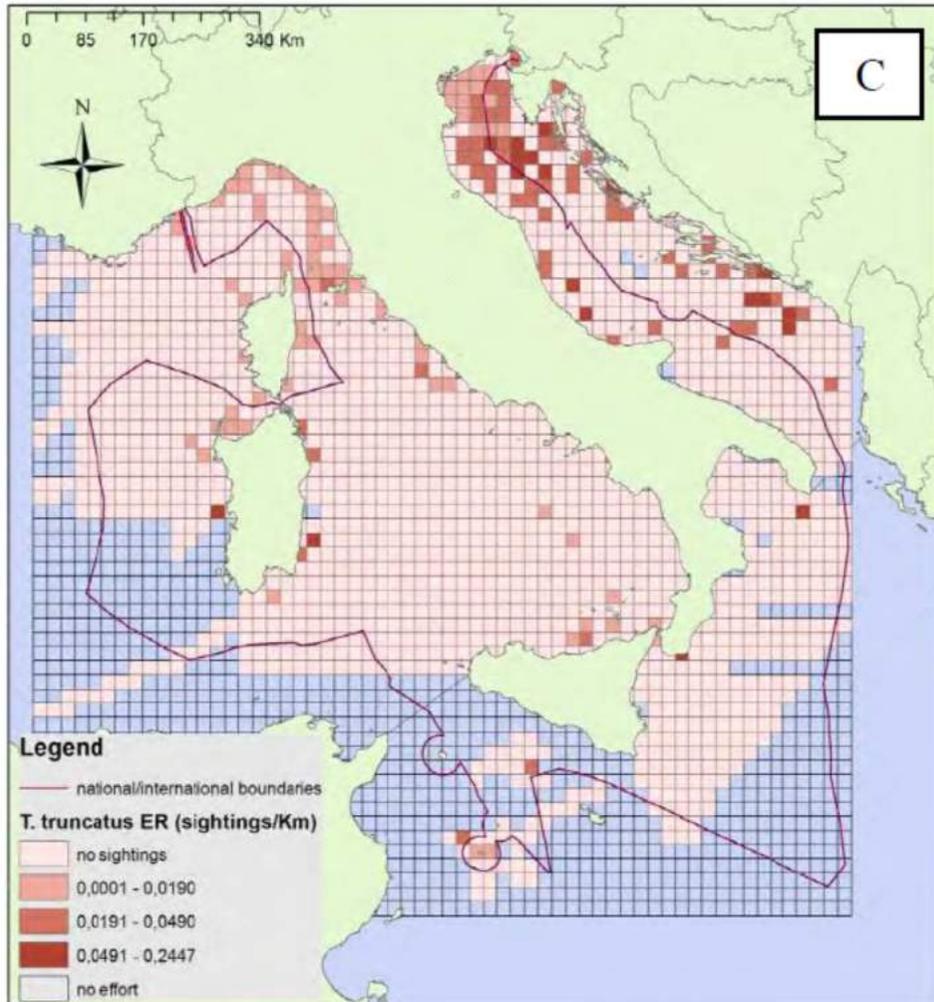


**Marine Strategy: risultati della campagna 2018 di
rilevamenti su Tursiope in Toscana**

ARPAT Cecilia Mancusi



TURSIOPE-Tursiops truncatus

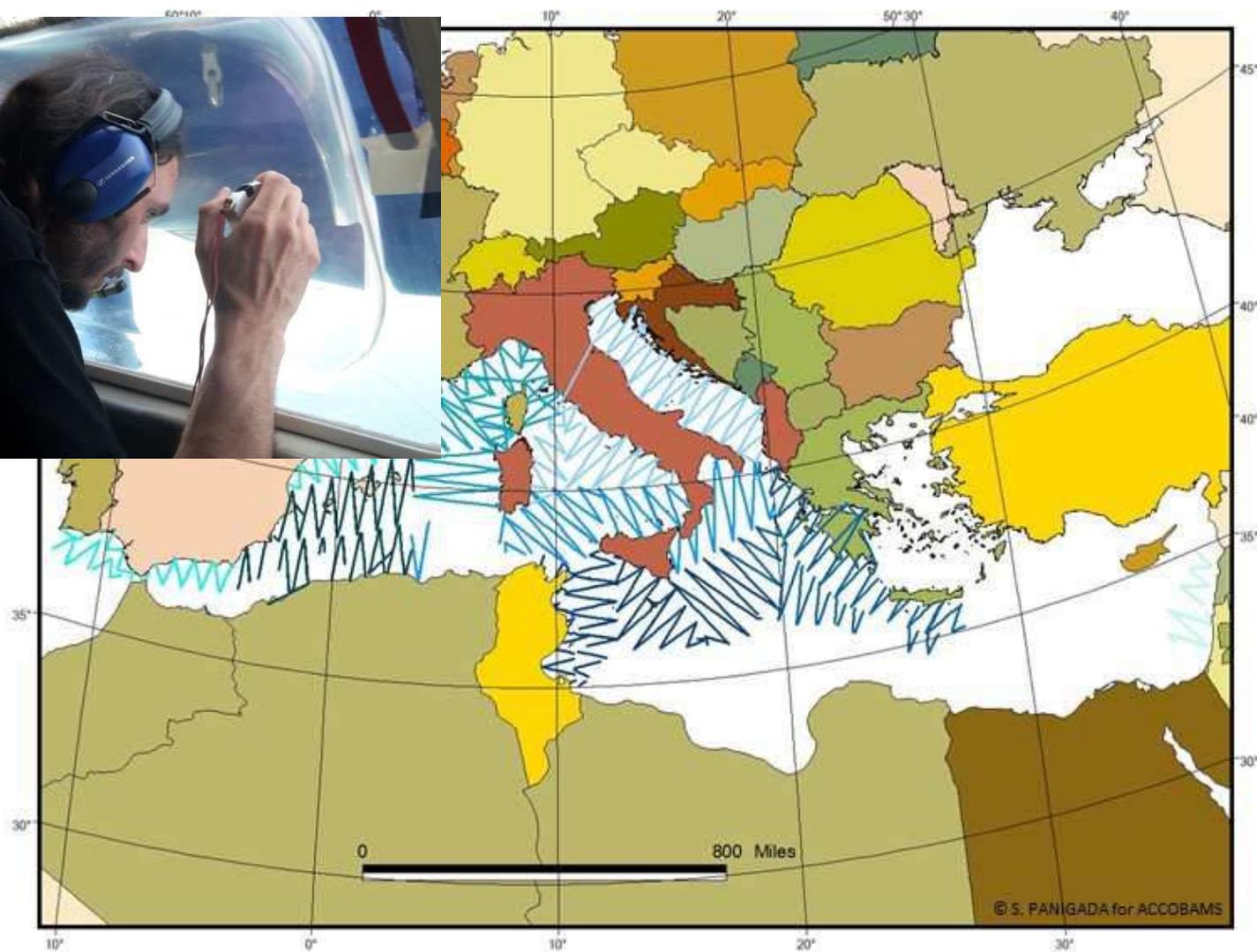


- Cetaceo odontocete
- Costiero
- Grande adattabilità
- Specie molto studiata
- No stime complessive per il Med
- 1000-1700 (1223) animali Santuario
- Interesse comunitario
(All. II Dir.92/43 CE)



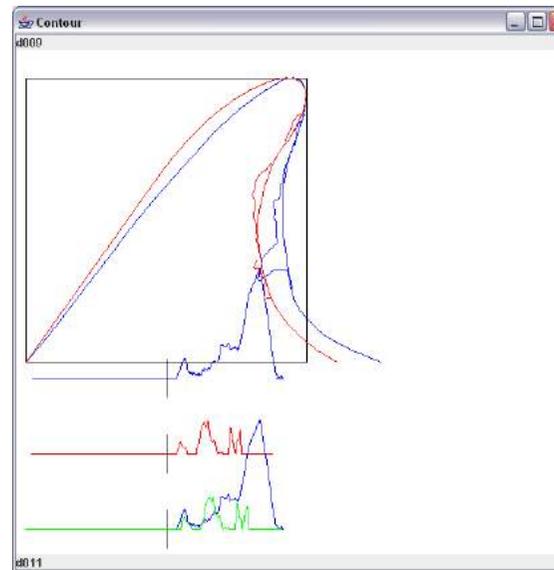
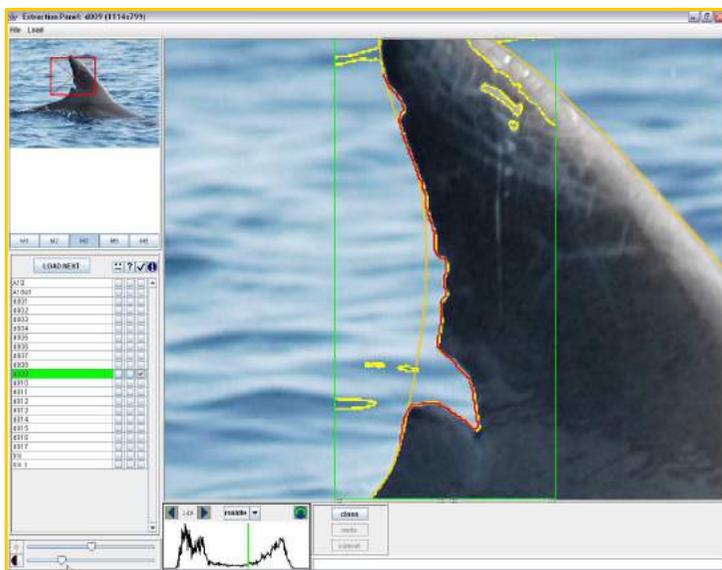
Aerial Survey

Updated effort - August 1st 2018





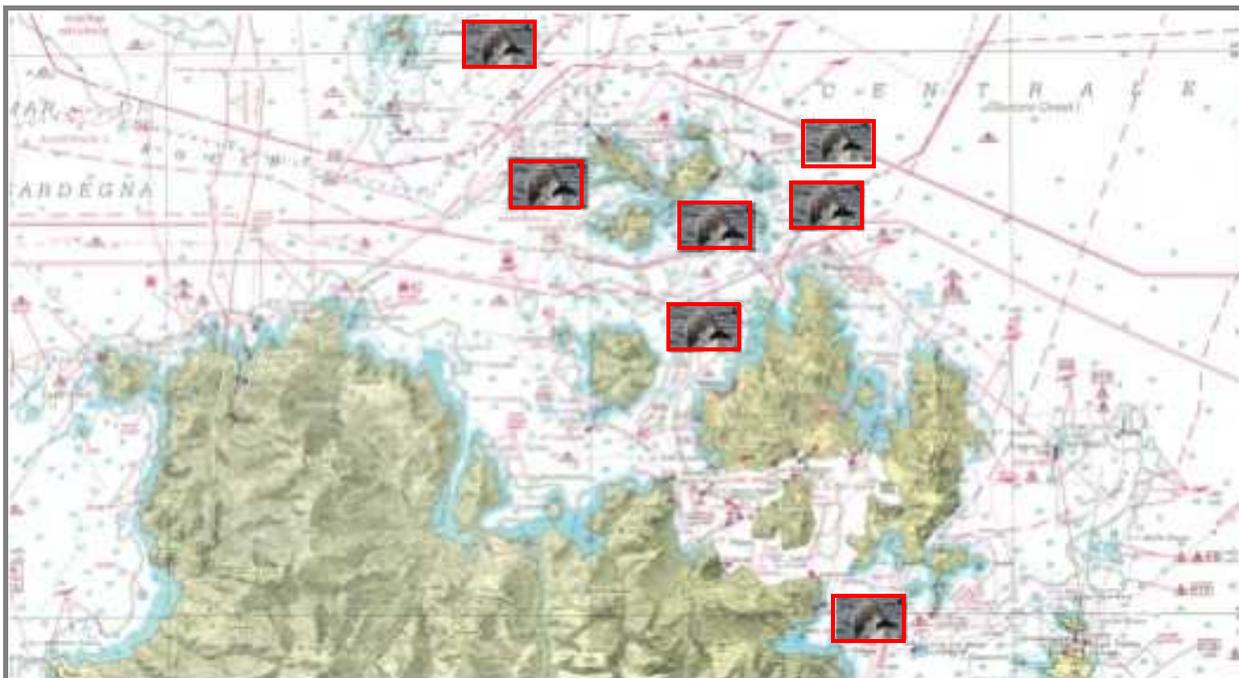
LINE TRANSECT LINEAR SAMPLING **abbondanza e distribuzione** **LA FOTOIDENTIFICAZIONE** **ecologia ed etologia**





D23-A14

“CALIPSO”



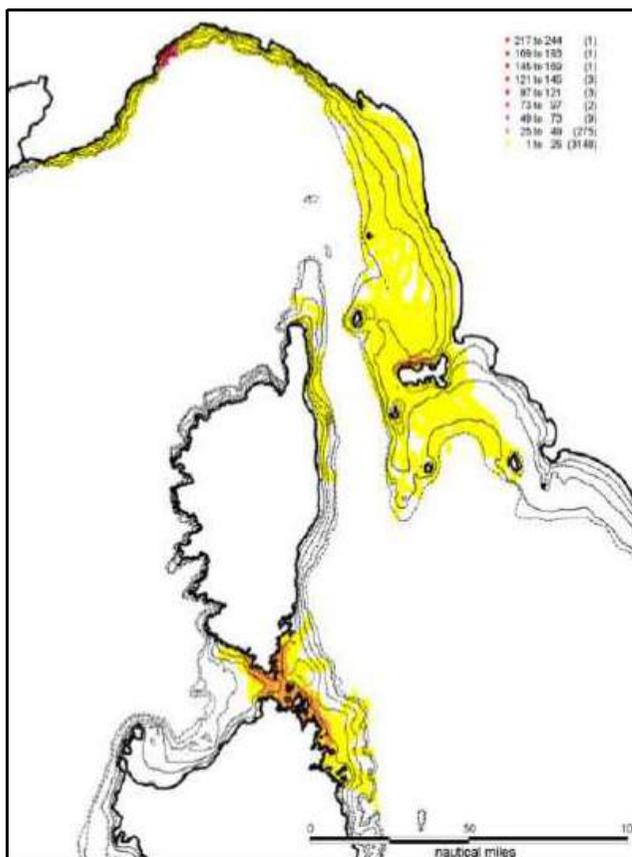


D14
“UNCINO”

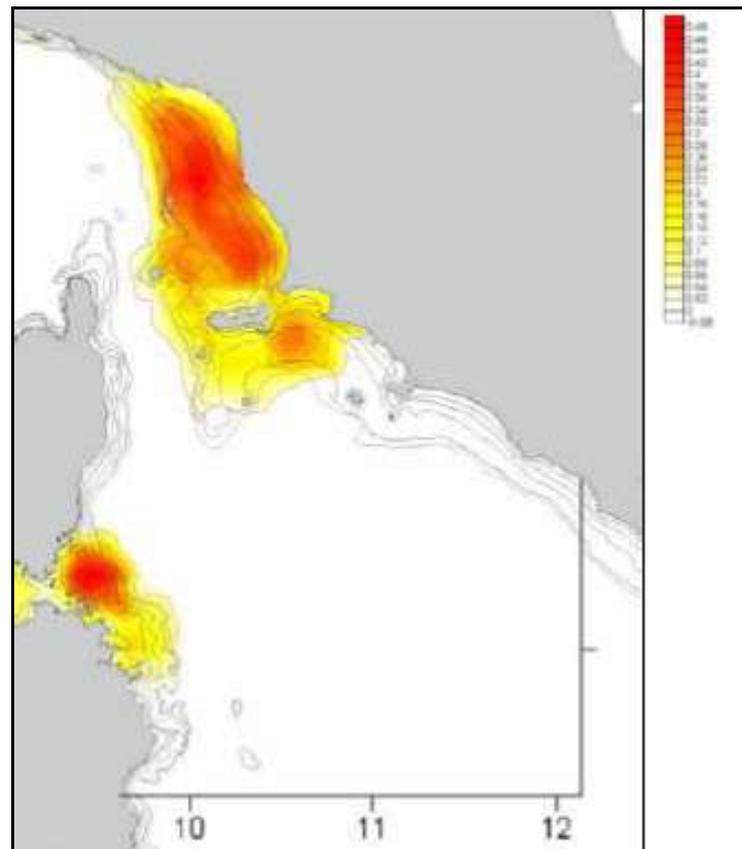




Progetto Gionha: analisi dati 2005-2011



Sforzo di campionamento



Concentrazione tursiopi

UniGE (DISTAV), CETUS, OEC, Regione Sardegna

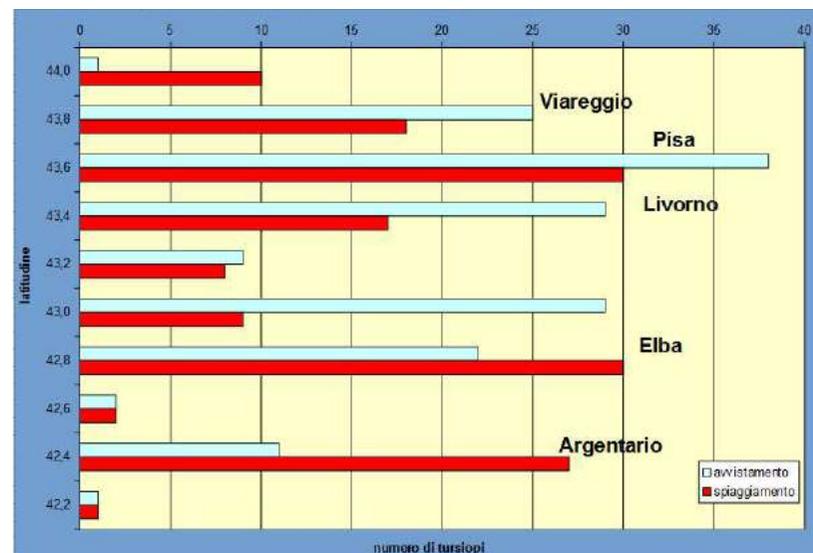
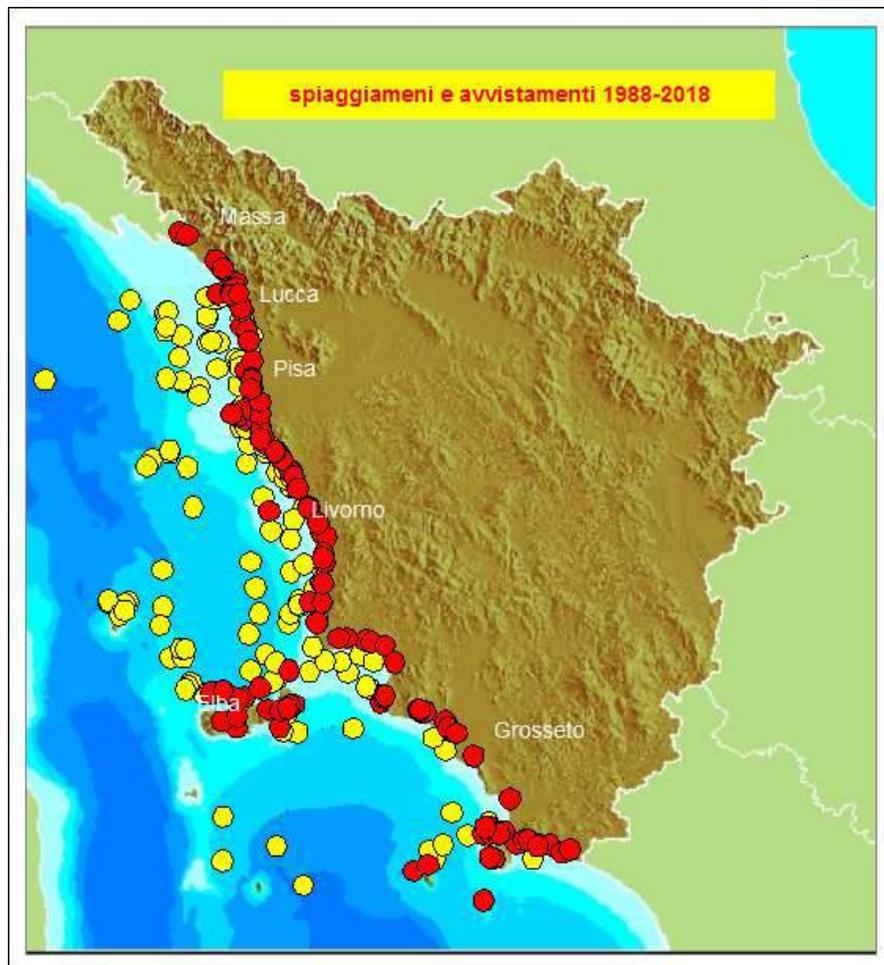
4356 mn

1192 animali → catalogo INTERCET



Osservatorio Toscano Biodiversità: L.R. 30/2015

(ex Osservatorio Toscano Cetacei- DGR del 10 aprile 2007, n. 247)





GO GREEN Mare 2012

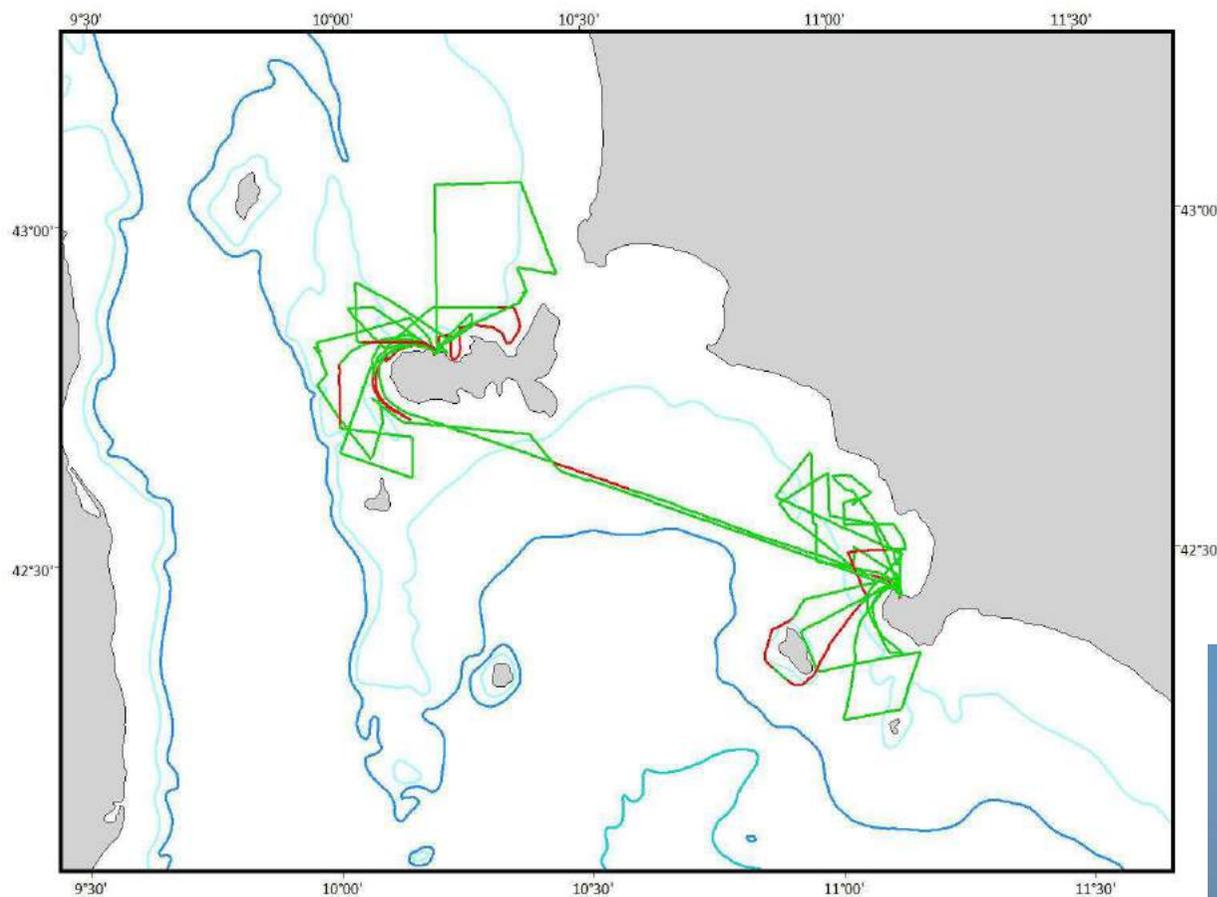
Tethys

ott-nov

13 uscite

104 ore-1065 km

10 gruppi, 87 animali



Zona "Elba"



Zona "Orbetello"

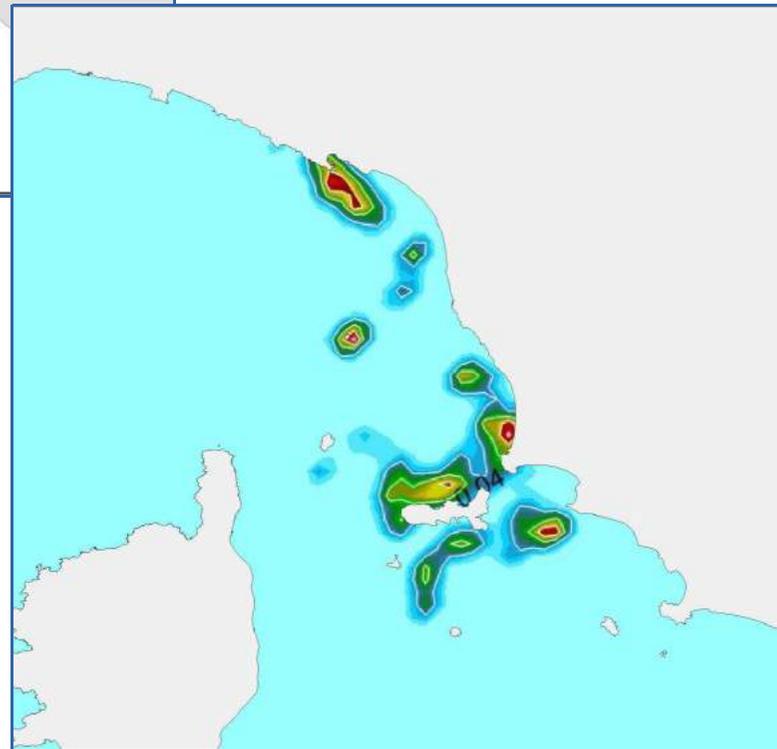
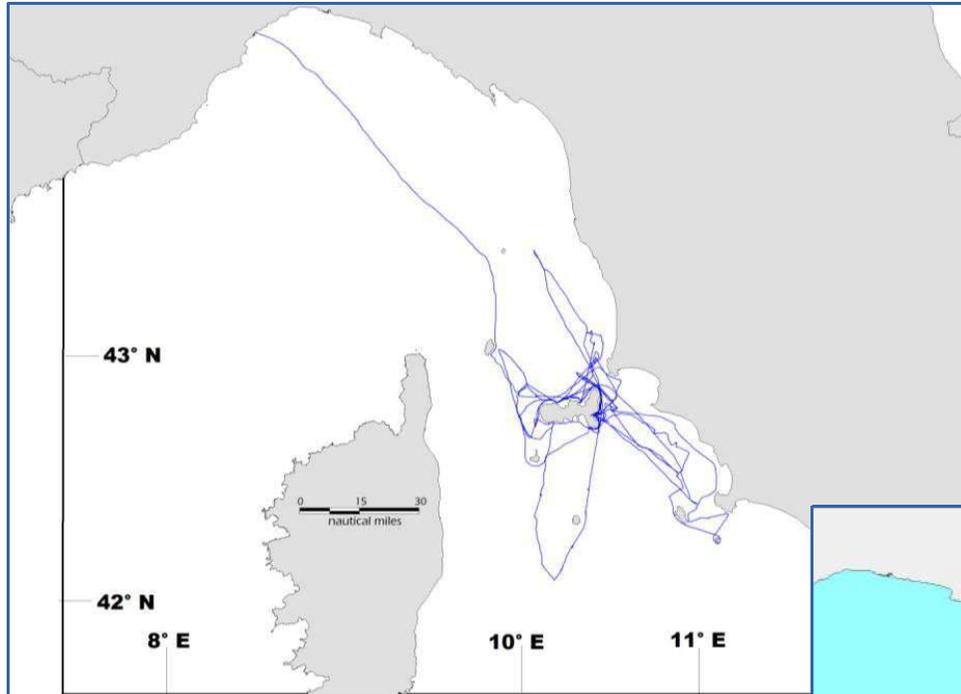


UniGE (DISTAV)

ott-genn

15 uscite

18 gruppi, 73 animali

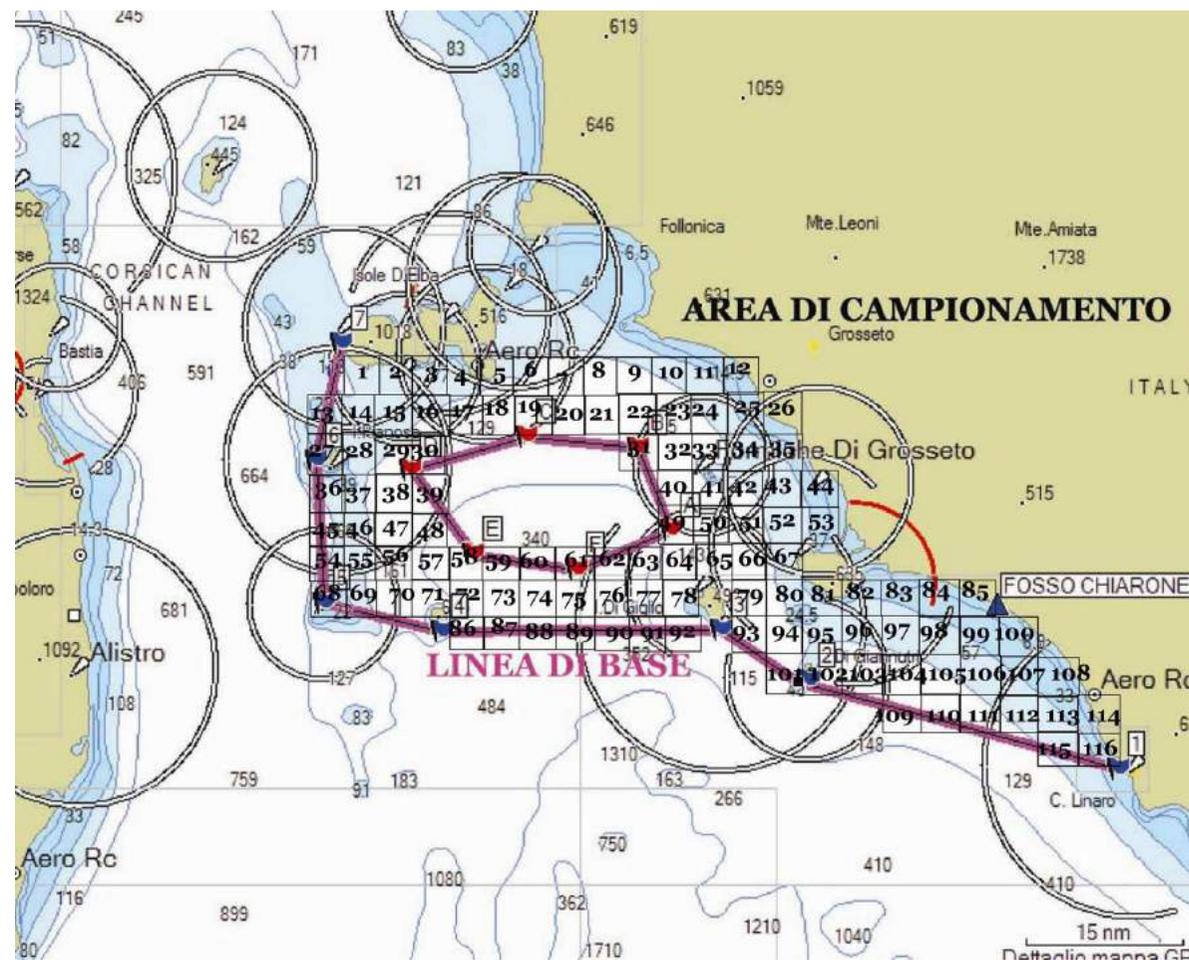




CETUS (Viareggio)

ott-nov

778 km-67h



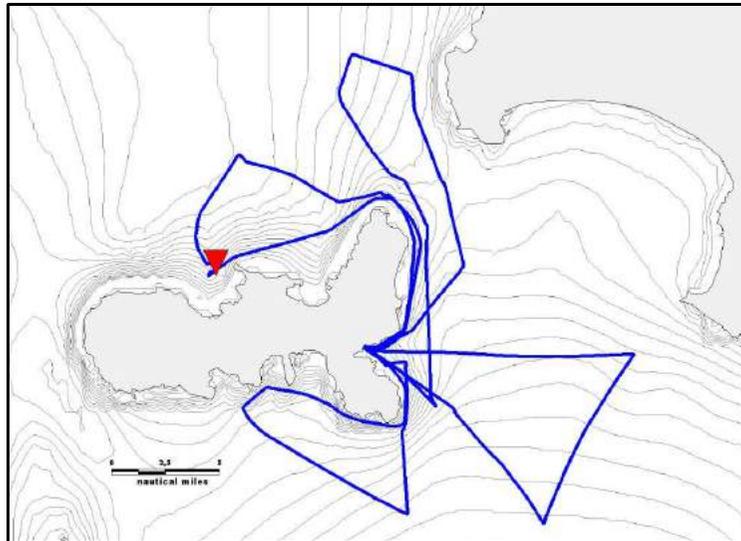
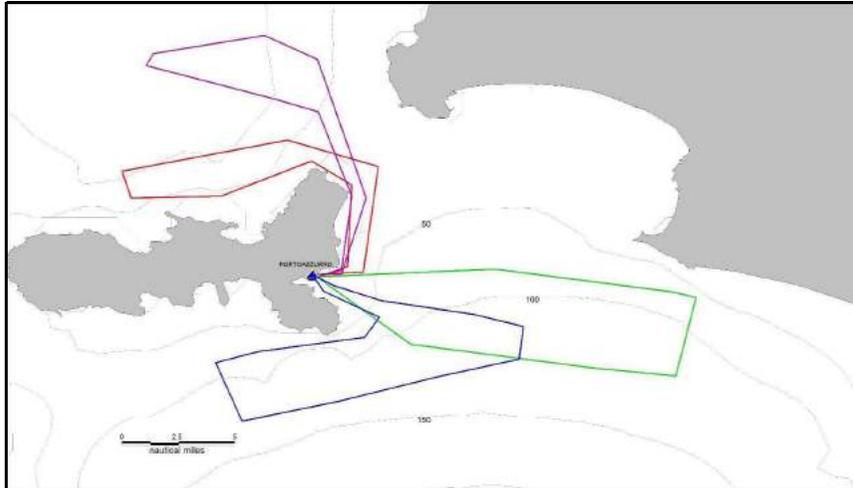
GO GREEN Mare 2014

MARELIBERO (Elba)

ott-nov

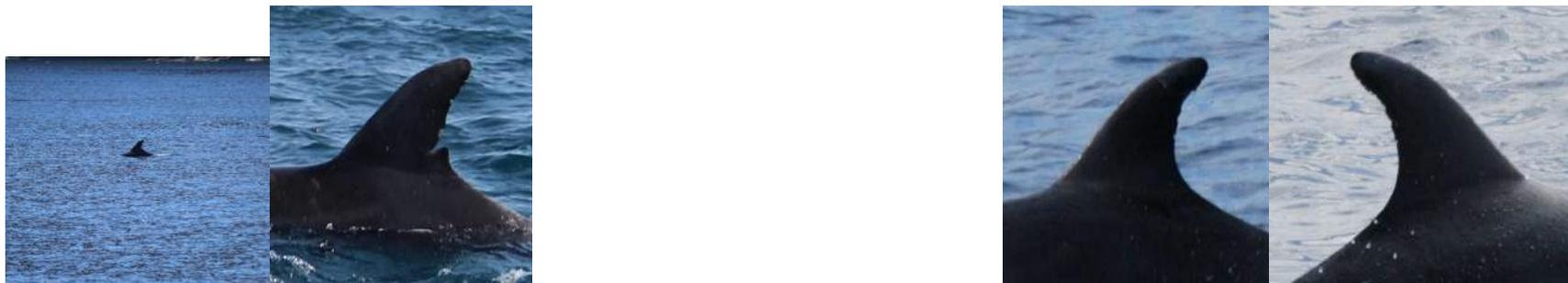
170 mn-30h

1 esemplare



CATALOGO MARELIBERO 2013-2014

>> Database fotografico <<

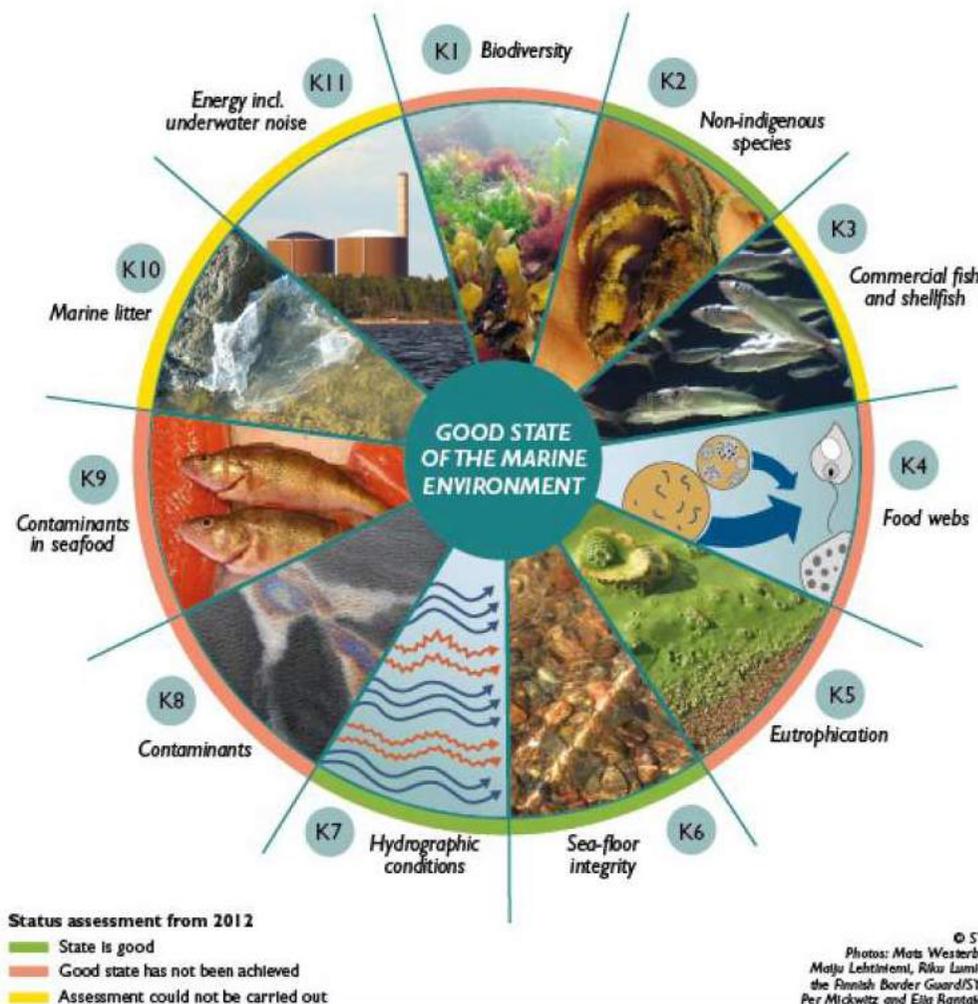


Marine Strategy Framework Directive

La Direttiva quadro sulla strategia per l'ambiente marino

MSFD – 2008/56/CE

D.gls. 190/2010





Moduli: piani di monitoraggio

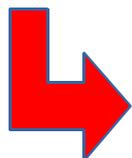
| N | Modulo | n. aree | note |
|----|---|---------|--|
| 1 | Colonna d'acqua, habitat pelagici | 8 | contaminazione nell'acqua e nei sedimenti |
| 2 | Analisi microplastiche | 4 | |
| 3 | Specie non indigene | 1 | |
| 4 | Rifiuti spiaggiati | 5 | |
| 5 | Contaminazione | 5 | per traffico marittimo e impianti industriali |
| 6 | Input di nutrienti | 1 | da fonti fluviali |
| 7 | Habitat coralligeno | 3 | |
| 8 | Habitat fondi a Maerl | 1 | |
| 9 | Habitat di fondo marino sottoposti a danno fisico | 1 | |
| 10 | Habitat delle praterie di <i>Posidonia oceanica</i> | 1 | |
| 11 | Specie bentoniche protette | 12 | <i>Patella ferruginea</i> e <i>Pinna nobilis</i> |
| 12 | Mammiferi marini: <i>Tursiops truncatus</i> | 1 | delfino = <i>Tursiops truncatus</i> |
| 13 | Avifauna marina | 5 | marangone, gabbiano corso, berta minore e maggiore |



Poseidon (ARPAT)
Monitoraggio di opportunità,
trasetti mod. 1 e 2

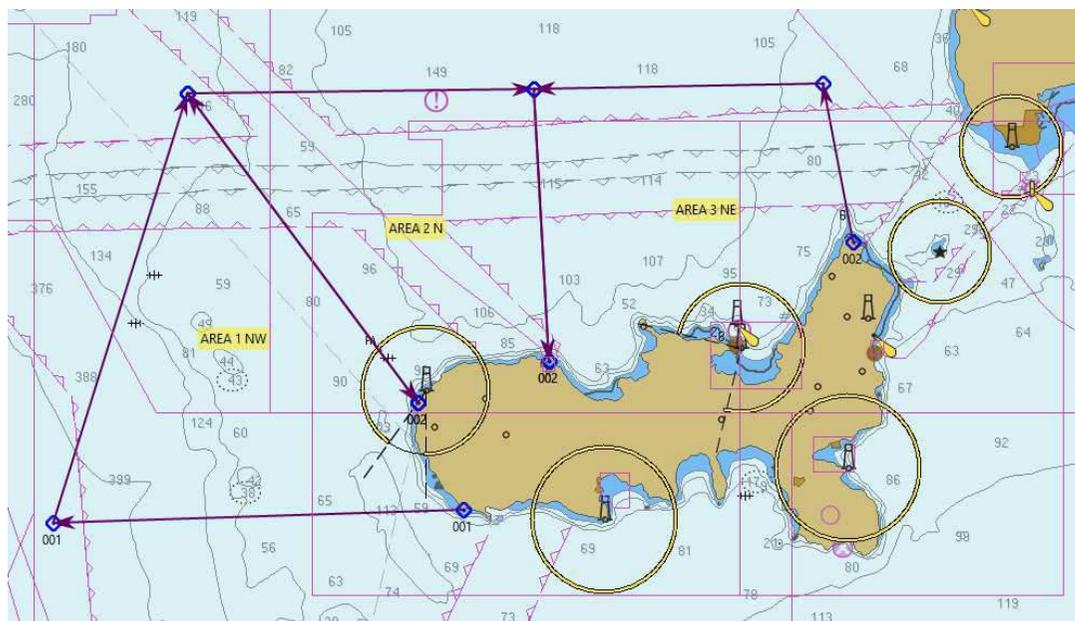
Krill (CETUS)

Monitoraggio "dedicato", line
transect sampling; mappe di
distribuzione, abbondanza,
movimenti, elementi
demografici

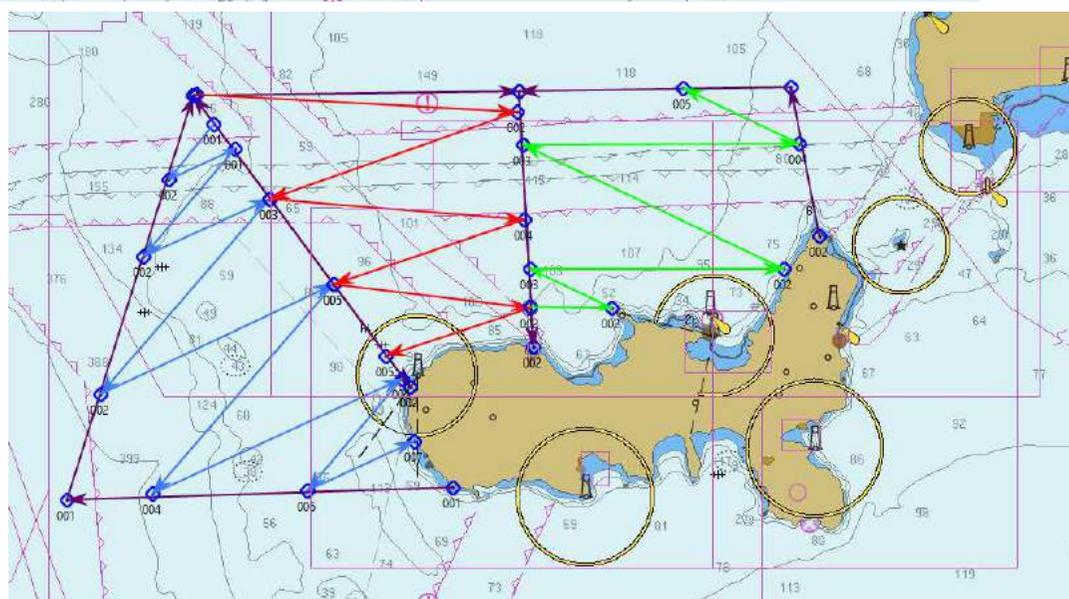


**Chiusura EU pilot
834/16/ENVI**

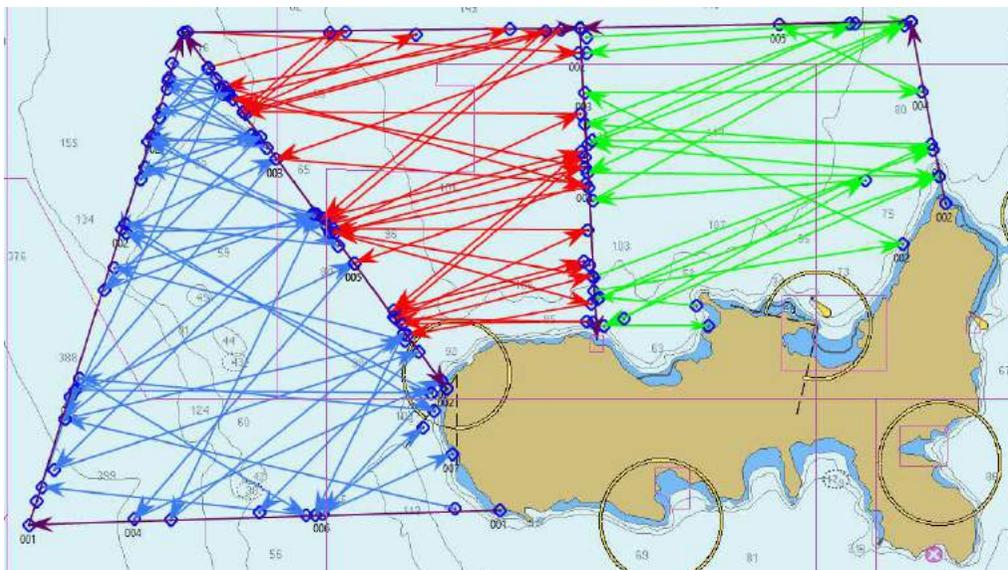




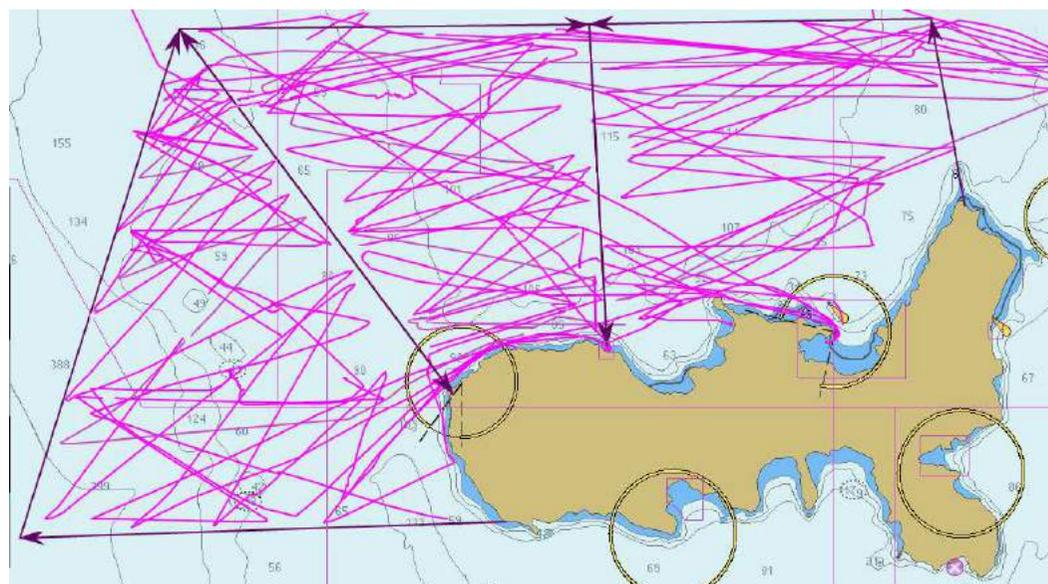
Tre sotto aree



Transetti ad
angolo
costante

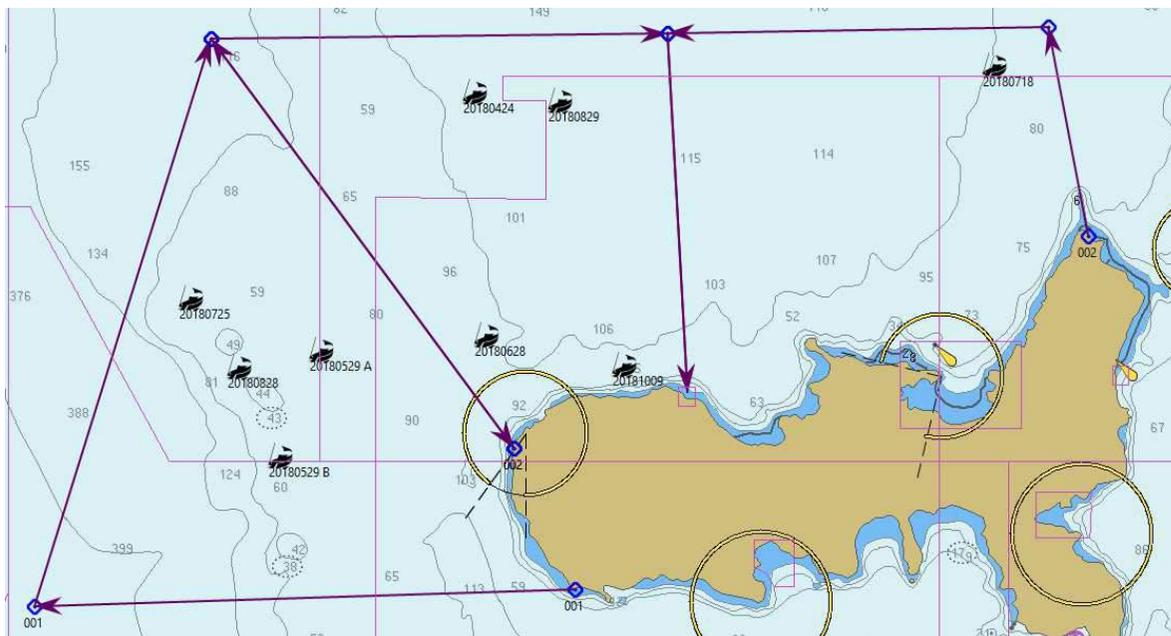


aprile-settembre
18 giorni in mare
968 mn-147h

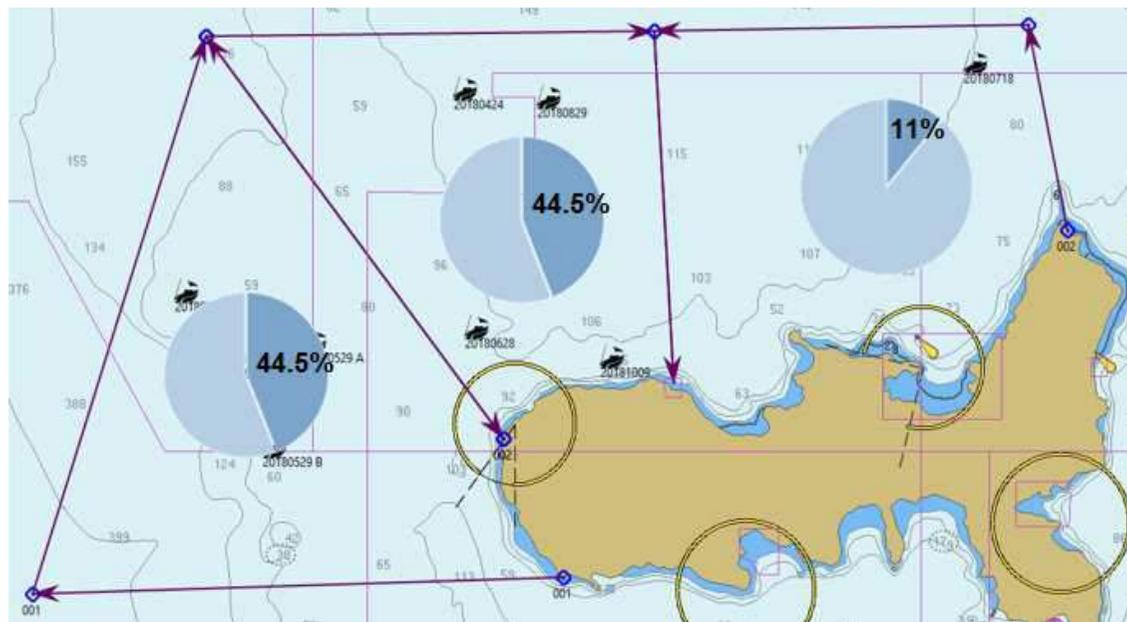


FOTOIDENTIFICAZIONE - Catalogo fotografico





9 avvistamenti
63 animali
34 "nuovi" esemplari
7 "ricatture"
e.r. =0.005 basso ma in
linea con dati
pregressi





RIASSUMENDO

2005-2018

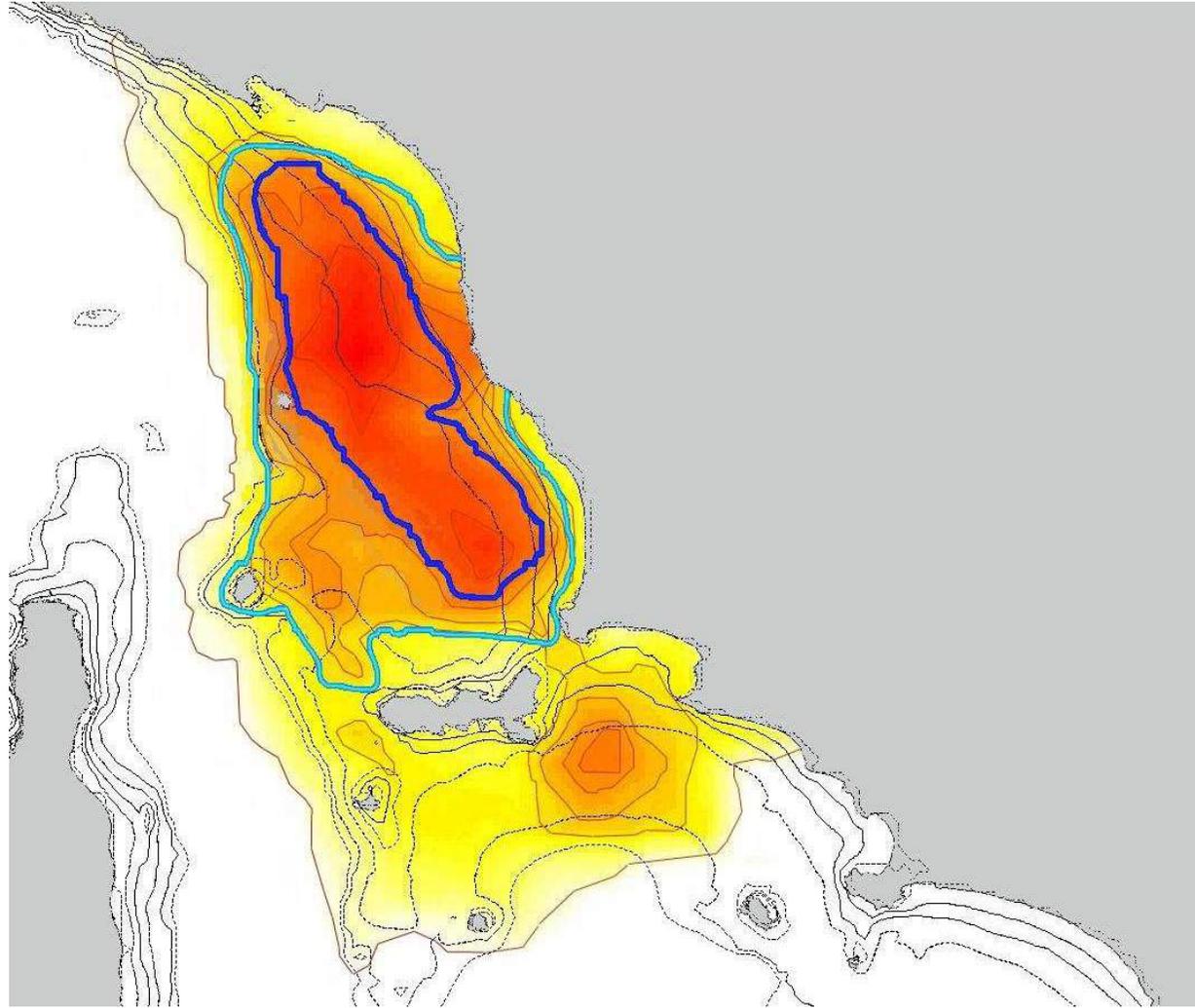
11.645 miglia nautiche

132 uscite

1416 tursiopi avvistati

205 fotoidentificati

Catalogo INTERCET



Area di concentrazione del tursiopo in Toscana - possibile zona di tutela

???



GRAZIE